

OBJECTIVE: To determine whether or not subtle differences between risperidone and olanzapine, two similarly-efficacious medications, are reflected in health care utilization patterns, and therefore, costs, in patients with schizophrenia receiving usual care. **METHODS:** A retrospective cohort study was conducted from the payer perspective in two group model managed care organizations. Analysis of covariance and logistic regression were used to identify outpatient cost and hospitalization differences respectively, while adjusting for variables that may independently influence mental health utilization and choice of atypical agent. Patients ages 18–64 initiating risperidone or olanzapine between January 1997 and December 2000 diagnosed with schizophrenia or schizoaffective disorder in the pre-initiation year were included if they received no atypical antipsychotics in the previous year and were continuously enrolled one year pre through one year post initiation. Utilization units were transformed into 2001 costs at one site. The total post-initiation year outpatient mental health cost derived included all mental health outpatient visits (including urgent care) and medications, and tests related to olanzapine or risperidone monitoring. The relationship between drug exposure and hospitalization was explored using logistic regression. An intent-to-treat analysis was performed. **RESULTS:** Patients receiving risperidone were less costly in the post-initiation year than patients receiving olanzapine. The results were significant ($p < 0.05$) controlling for age, gender, coverage type, total mental health outpatient costs in the year prior to initiation, study site, index year, mental health comorbidities, and mental health hospitalization in the pre-initiation year. Seventeen percent of olanzapine and 21% of risperidone patients were hospitalized in the year post initiation, a difference that was not statistically significant. **CONCLUSIONS:** Prescribers should consider using risperidone before using olanzapine when initiating therapy in a patient with schizophrenia who has no contraindications to either medication. More study is needed to determine the relationship between atypical choice and mental health hospitalization.

PMH34**COMPARISON OF OLANZAPINE VERSUS QUETIAPINE IN THE TREATMENT OF HOSPITALIZED PATIENTS WITH SCHIZOPHRENIA**

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OBJECTIVE: To compare pharmacotherapy patterns and treatment outcomes for olanzapine- versus quetiapine-treated hospitalized patients with schizophrenia. **METHODS:** Hospitalized olanzapine- and quetiapine-treated patients discharged with schizophrenia (ICD9: 295.xx) between 01/1999 and 09/2001 were identified using Premier's PerspectiveTM database, the largest U.S. hospital drug utilization database. Outcome measures

include use of other antipsychotics, mood stabilizers, antidepressants, anxiolytics, and hypnotics; length of stay (LOS); and total treatment costs were analyzed by regressions, controlling diagnoses, illness severity, patient and institution characteristics. **RESULTS:** Of 9433 patients (54.8% male, mean age 41.5 years), 6699 were olanzapine-treated and 2734 quetiapine-treated. After adjusting for confounding factors, olanzapine-treated patients used fewer psychotropic agents (-0.36 , $p < 0.0001$) and were less likely to switch to or augment with other atypical antipsychotics (odds ratio (OR) = 0.71, 95% confidence interval (CI) = 0.62 – 0.81). Olanzapine-treated patients were less likely to be treated with typical antipsychotics (OR = 0.77, CI = 0.70 – 0.85), mood-stabilizers (OR = 0.84, CI = 0.77 – 0.93), anxiolytics (OR = 0.67, CI = 0.60 – 0.74), or anti-Parkinsonian agents (OR = 0.87, CI = 0.79 – 0.96). There was no between-group difference in antidepressant or hypnotic use. Total costs for olanzapine-treated patients were lower ($-\$678$, $p < 0.0001$) as the result of shorter LOS (-11.4% , $p < 0.0001$). **CONCLUSIONS:** Compared to quetiapine, olanzapine treatment for hospitalized patients with schizophrenia was associated with more favorable pharmacotherapy patterns, shorter LOS, and lower costs.

PMH35**ATYPICAL ANTIPSYCHOTICS: TREATMENT PATTERNS, UTILIZATION AND COST AMONG MANAGED CARE ENROLLEES**

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OBJECTIVES: To examine treatment patterns and analyze differences in health services utilization and costs for subjects receiving risperidone, olanzapine or quetiapine. **METHODS:** This study used administrative claims data to identify continuously enrolled subjects prescribed atypical antipsychotics between January 1, 2000 and December 31, 2000. Subjects were assigned to a diagnostic category based on the appearance of two or more ICD-9 codes for schizophrenia, affective disorder, dementia, anxiety or childhood disorders during the study period. Duration of therapy, compliance, daily dose, daily average consumption and concomitant medication use were analyzed descriptively. Subjects were propensity score matched on baseline characteristics for the purpose of comparing health services utilization and cost by site of service. **RESULTS:** Of 6471 study subjects, average annual days of therapy were nearly equal between drug groups (184–186 days). However, average annual days of therapy varied widely by diagnostic condition (181 days for anxiety, 270 days for schizophrenia). Concomitant use of psychotropic medication was common for all 3 drugs (81%). Subjects receiving risperidone had an average daily dose below the recommended target dose for schizophrenia as did olanzapine subjects with bipolar disorder. Daily average consumption increased slightly for risperidone and quetiapine subjects

over the follow-up period. After matching, there was no significant difference in health services utilization between drug groups. However, risperidone subjects had significantly lower pharmacy costs ($p < .0001$) and total costs ($p = 0.0181$) compared to olanzapine subjects. Subjects with affective disorders had total costs that were significantly higher compared to subjects with schizophrenia or childhood disorders. **CONCLUSIONS:** Studies comparing cost and utilization among atypical antipsychotics should consider the host of factors that may influence receipt or regiment of care such as diagnostic condition, duration of therapy and dosing.

PMH36

ECONOMIC EVALUATION OF ATYPICAL ANTIPSYCHOTICS WITHIN THE WISCONSIN MEDICAID PROGRAM

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OBJECTIVE: Factors influencing atypical antipsychotic selection include physician preference, and patient characteristics. Studies comparing risperidone, quetiapine, olanzapine and ziprasidone resulted in inconclusive evidence suggesting superiority of one agent over another. Amidst concerns over increasing drug expenditures, cost has become a major issue in the drug sector. Therefore, the purpose of this study is to model the potential annual cost savings that may occur as a result of shifting utilization from risperidone, quetiapine, and olanzapine to ziprasidone within the Wisconsin Medicaid population. **METHODS:** Retrospective review of Wisconsin Medicaid paid prescription claims data from January 1, 2001 to December 31, 2001. Utilization of schizophrenic doses of risperidone, quetiapine, olanzapine, and ziprasidone were extracted for this analysis. The main outcomes calculated were cost per unit, mean cost per claim, and total yearly expenditure per drug. To test the robustness of the analysis, we modeled the total savings by estimating a 10%, 20% and 50% shift of risperidone, quetiapine and olanzapine utilization to ziprasidone. **RESULTS:** Total number of claims in 2001 for risperidone, quetiapine, olanzapine and ziprasidone were 41,408, 36,722, 48,647, and 9,288, respectively. The corresponding annual total dollar payouts were \$8,705,264, \$7,271,390, \$17,081,012, and \$1,729,874 respectively. The cost per claim for ziprasidone (\$186.25) was significantly lower than olanzapine (\$351.12), quetiapine (\$198.01), and risperidone (\$210.23). A 50% shift to ziprasidone would result in a total cost savings of \$4,722,833,70 annually. **CONCLUSION:** This analysis suggests that there is a potential for substantial cost savings within the Wisconsin state Medicaid system that would occur as a results of shifting utilization from other atypical antipsychotics to ziprasidone.

PMH37

THE ECONOMIC BURDEN OF DEPRESSION IN 2000

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OBJECTIVES: The economic burden of depression was estimated at approximately \$44 billion in 1990. A subsequent study refined the estimation of the morbidity costs associated with depressive disorders and revised this figure to \$53 billion. The objective of this study is to provide a 10-year update of the economic burden of depression using the same refined methodology. **METHODS:** Using a human capital approach we developed prevalence-based estimates of 3 major cost categories: 1) direct costs, 2) mortality costs arising from depression-related suicides, and (3) morbidity costs associated with workplace depression. Estimates were updated to reflect 2000 values, using the most current epidemiological data for prevalence rates and publicly available cost data by condition. **RESULTS:** We estimate that the total economic burden of depression in 2000 was \$81.5 billion. Of this total, \$26.1 billion—32%—are direct medical costs, \$5.4 billion—7%—are mortality costs, and \$49.9 billion—61%—are morbidity costs. Work absenteeism resulted in \$34.5 billion—42% of total costs, while work cutback costs were \$15.4 billion—19% of total costs. **CONCLUSIONS:** The economic burden of depression was \$81.5 billion in 2000. Morbidity generated the largest portion, 61%, of these costs. Future research investigations will incorporate additional costs associated with depressive disorders, including the excess costs of treating comorbid illnesses and the cost burden of depressed individuals' family members.

PMH38

A STUDY OF THE ECONOMIC BURDEN OF DEPRESSION

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OBJECTIVES: Depression is a major public health issue in the United States. It is associated with high morbidity and mortality. Hence it is important to evaluate its economic impact on the U.S. health care system. Information about the economic burden of depression will help in effective utilization and allocation of healthcare resources. The main outcome measure of this study was the economic burden of depression in a patient population of 703 with a primary diagnosis of depression. **METHODS:** A secondary database analysis was conducted using the Medical Expenditure Panel Survey, 1999 (MEPS 99). Patients with primary diagnoses of depression were identified using International Classification of Diseases, 9th revision, Clinical Modification (ICD 9 CM).